

TECHNICAL REVIEW DOCUMENT
For
MODIFICATION TO OPERATING PERMIT 95OPWE096

Thermo Cogeneration Partnership, L. P., a Delaware Limited Partnership - Ft.
Lupton Cogeneration Facility
Weld County
Source ID 1230250

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September 2009
Revised November 20, 2009

I. Purpose:

This document establishes the decisions made regarding the requested modifications to the Operating Permit for the Thermo Cogeneration – Ft. Lupton facility. This document provides information describing the type of modification and the changes made to the permit as requested by the source and the changes made due to the Division's analysis. This document is designed for reference during review of the proposed permit by EPA and for future reference by the Division to aid in any additional permit modifications at this facility. The conclusions made in this report are based on the information provided in the original request for modification submitted to the Division on September 4, 2009 and the Phase II Acid Rain Permit application submitted on July 24, 2009, various e-mail correspondence and telephone conversations with the source. This narrative is intended only as an adjunct for the reviewer and has no legal standing.

Any revisions made to the underlying construction permits associated with this facility made in conjunction with the processing of this operating permit application have been reviewed in accordance with the requirements of Regulation No. 3, Part B, Construction Permits, and have been found to meet all applicable substantive and procedural requirements. This operating permit incorporates and shall be considered to be a combined construction/operating permit for any such revision, and the permittee shall be allowed to operate under the revised conditions upon issuance of this operating permit without applying for a revision to this permit or for an additional or revised construction permit.

II. Description of Permit Modification Request/Modification Type

The renewal operating permit for this facility was issued on October 1, 2006. The modification request submitted on September 4, 2009 is to address the Acid Rain Requirements in the Title V permit. The source submitted an Acid Rain Permit application on July 24, 2009. Changes were made to the power purchase agreement such that the facility no longer qualifies for the exemption under 40

CFR Part 72 § 72.6(b)(6). The source requested that the modification to the Title V permit to include the Acid Rain provisions be processed as a minor modification.

Colorado Regulation No. 3, Part C, Section X.A.2 specifies that minor permit modifications may be used for modifications that do not involve significant changes to existing monitoring, reporting, or recordkeeping requirements in a permit. This modification has been requested because this source has become subject to the Acid Rain Program. The Acid Rain Program specifies the use of NO_x and SO₂ CEMS and requires that sources hold adequate SO₂ allowances. The source is currently required to operate a NO_x CEMS to monitor compliance with their NO_x limitations. A source subject to Acid Rain is subject to the CEMS requirements specified in 40 CFR Part 75, while the source is currently subject to the CEMS requirements in 40 CFR Part 60. Under the Acid Rain program, in lieu of installing a SO₂ CEMS, sources that burn natural gas as fuel can use the procedures in 40 CFR Part 75 Appendix D. Nevertheless, the source will be required to record hourly SO₂ emissions and report both hourly SO₂ and NO_x emissions to EPA on a quarterly basis. The Division does not consider that the changes associated with the NO_x CEMS requirements to be a significant change in monitoring requirements. In addition, although the source will now be required to record hourly SO₂ emissions from the turbines on their data acquisition and handling systems, changes that require more frequent monitoring and reporting can be processed as administrative amendments (Colorado Regulation No. 3, Part A, Section I.B.1.a.(iii)).

Colorado Regulation No. 3, Part C, Section X.A.6 specifies that modifications that “are not otherwise required by the Division to be processed as a significant modification” may be processed as a minor modification. A significant modification requires the full Title V permit review process (30 day public comment period and 45 day EPA review period). Typically an Acid Rain permit is issued under the Title V permitting requirements which include a 30-day public comment period and 45-day review period. However, the Acid Rain requirements (40 CFR Part 72 § 72.72(b)(1)(v), as adopted by reference in Colorado Regulation No. 18) allow for expedited permit issuance, as follows:

The State permitting authority may, in its discretion, issue, as a single document, a draft Acid Rain permit in accordance with paragraph (b)(1)(ii) of this section and a proposed Acid Rain permit and may provide public notice of the opportunity for public comment on the draft Acid Rain permit in accordance with paragraph (b)(1)(iii) of this section. The State permitting authority may provide that, if no significant, adverse comment on the draft Acid Rain permit is timely submitted, the proposed Acid Rain permit will be deemed to be issued on a specified date without further notice and, if such significant, adverse comment is timely submitted, a proposed Acid Rain permit or

denial of a proposed Acid Rain permit will be issued in accordance with paragraph (b)(1)(iv) of this section. Any notice provided under this paragraph (b)(1)(v) shall include a description of the procedure in the prior sentence.

In addition, the Acid Rain rules (40 CFR Part 72 § 72.72(b)(1)(iii), as adopted by reference in Colorado Regulation No. 18) allow for Division discretion to forego publishing a public notice, as follows:

if a draft permit requires the affected units at a source to comply with §72.9(c)(1) and to meet any applicable emission limitation for NO_x under §§76.5, 76.6, 76.7, 76.8, or 76.11 of this chapter and does not include for any unit a compliance option under §72.44 [phase II repowering extension], part 74 [SO₂ opt-in] of this chapter, or §76.10 [alternative NO_x emission limitation] of this chapter, the State permitting authority may, in its discretion, provide notice by serving notice on persons entitled to receive a written notice and may omit notice by newspaper or State publication.

These units will be required to comply with § 72.9(c)(1), the source has not requested a phase II repowering extension, these units are not subject to any NO_x limits (hence alternative NO_x emissions limitations in § 76.10 do not apply), and as a result, the Division may use its discretion and forego public comment, provided the appropriate individuals are notified.

Therefore, since the addition of the Acid Rain requirements is not specifically prohibited from being processed as a minor modification and because of the expedited Acid Rain permit issuance procedures (the Division may issue a draft/proposed permit and forego the public notice period), the Division agrees that this modification to incorporate the Acid Rain provisions can be processed as a minor modification, provided the appropriate individuals are notified. The Division considers that notification of the proposed Title V permit to incorporate the Acid Rain provisions should include the source, EPA and the National Park Service (Rocky Mountain National Park is within 100 km of the facility). There are no affected states within 50 miles of this facility and no individuals have requested notification of Acid Rain permits to be issued for this or any other facility.

III. Modeling

No changes to either short-term or annual emission limitations have been requested with this modification. Therefore, no modeling is required.

IV. Discussion of Modifications Made

Source Requested Modifications

The Division addressed the source's requested modifications as follows:

September 4, 2009 Modification Request

Section II.1 – Turbines and Duct Burners

The source requested that the monitoring requirements for the annual SO₂ emission limitations be revised to specify that the source use the provisions of 40 CFR Part 75 Appendix D. In addition, the source requested that the fuel sulfur content monitoring requirements be revised to be consistent with the requirements specified in 40 CFR Part 75 Appendix D. Finally, the source requested that a permit condition be added for the Acid Rain requirements. The changes have been made as requested.

In addition, the Division replaced the phrase “pipeline quality natural gas” with “pipeline natural gas” in various places within Section II.1. 40 CFR Part 72 defines “pipeline natural gas”, not “pipeline quality natural gas”.

Finally, the reference to “Condition 5.3.3.1” in Condition 1.4.3 was corrected to “Condition 5.3” due to the remove of several conditions in Section II.5 (see discussion below).

Section II.5 – Continuous Emission Monitoring Requirements

The source requested that the continuous emission monitoring requirements be upgraded to address that the NO_x monitors are now subject to the requirements of 40 CFR Part 75, rather than 40 CFR Part 60. The source's proposed changes are consistent with other Title V permits for similar sources. The source's proposed changes include format changes and the addition or reorganization of other permit conditions. In general, these changes were made as requested, with the following exceptions:

- Removed the phrase “and the traceability protocols of Appendix H” from proposed Condition 5.1.1.2, since Appendix H of the current version of 40 CFR Part 75 is “reserved”. Note that Condition 5.1.1.2 specifies that the continuous emission monitoring systems are subject to the requirements of 40 CFR Part 75 and that would include any applicable appendices, regardless of whether or not they are specifically called out in this condition.

- NSPS Subpart GG specifically allows sources that are required to install a Part 75 NO_x CEMS to use that CEMS to demonstrate compliance with the NSPS GG NO_x limits. The Division assumes that if a source chooses this option, the CEMS requirements in Part 75 would apply and not those requirements specified in Subpart GG (which are based on Part 60 CEMS). Therefore, the Division considers that, except for the provisions in 40 CFR Part 60 § 60.334(b)(3)(iii), the specific NO_x CEMS provisions in § 60.334 do not apply, since they conflict with Part 75 requirements. Therefore, the only requirement that will be included under Condition 5.3 (specific provisions for NSPS Subpart GG) will be the provisions in § 60.334(b)(3)(iii).
- In their draft permit, the source suggested data replacement language consistent with the Part 75 data replacement requirements. The Division's Field Services Unit considers that this requirement is not necessary; therefore it has been removed from the permit. Although data replacement is required under the Acid Rain Program, the source is not required to replace data in order to monitor compliance with the annual NO_x and CO emission limitations.

Prior to the end of the EPA 45-day review period, the Division's Field Services Unit reconsidered their previous decision to remove the data replacement requirements from permits and determined that it was appropriate to include data replacement requirements for purposes of monitoring compliance with the annual emission limitations. Therefore, the data replacement requirements proposed by the source were included in the permit in Section II, Condition 5.5 for NO_x. Although the source initially proposed to use the Part 75 NO_x data replacement procedures for CO, since the Division initially indicated that data replacement would not be required, the CEMS was not programmed for this option. Therefore, the permit includes the data replacement requirements for CO that were included in the renewal permit (issued 10/1/06), which requires that the highest reading in previous 30 day period be used.

"Old" Section III – Permit Shield

The source requested that the permit shield be removed for the Acid Rain requirements in Section 1 (specific non-applicable requirements), since these units have become affected sources under the Acid Rain program. The change was made as requested.

"New" Section III – Acid Rain Requirements

The source requested that the Acid Rain Requirements be included in a "new" Section III of the permit.

Other Modifications

In addition to the requested modifications made by the source, the Division used this opportunity to include changes to make the permit more consistent with recently issued permits, include comments made by EPA on other Operating Permits, as well as correct errors or omissions identified during inspections and/or discrepancies identified during review of this modification.

The Division has made the following revisions, based on recent internal permit processing decisions and EPA comments on other permits, to the Thermo Cogeneration - Ft. Lupton facility Operating Permit with the source's requested modifications.

Section I – General Activities and Summary

- Replaced references from “Section IV” to “Section V” in Conditions 1.4 and 1.5.
- Added a column to the Table in Condition 6.1 for the startup date of the equipment.

Section II.2 – Emergency Generator

- Corrected the AP-42 citation (source of emission factor) in Condition 2.1.

“Old” Section III – Permit Shield

- Replaced the reference from “Section IV, Conditions 22.b & c” to “Section V, Conditions 22.b and c” in the table in Section 3 (streamlined conditions).

Section IV – General Conditions

- Added a version date to the General Conditions.
- The title for Condition 6 was changed from “Emission Standards for Asbestos” to “Emission Controls for Asbestos” and in the text the phrase “emission standards for asbestos” was changed to “asbestos control”.